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EXAMINER

THOMPSON, JAMES A

ART UNIT PAPER NUMBER

2624

DATE MAILED: 12/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/858,315

Applicant(s)

HOUSEL ET AL.

Examiner

James A Thompson

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 May 2001, 25 July 2001, 6 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 2624

DETAILED ACTION

Claim Grouping

1. Claim 1 recites a printing system. Claim 15 recites a method of producing documents. The system of claim 1 performs the method of claim 15. Claims 1 and 15 are therefore discussed together.

Claims 2-3 comprise the same limitations as claims 17-18. Therefore, claims 2-3 are discussed with claims 17-18.

Claims 4 and 5 respectively recite the same limitations as claims 19 and 20. Claims 4 and 5 are therefore respectively discussed with claims 19 and 20.

Claim 7-14 respectively recite the same limitations as claim 21-28. Claims 7-14 are therefore respectively discussed with claims 21-28.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -
(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-4, 6-10, 12-19, 21-24 and 26-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Livingston (US Patent 6,621,590 B1).

Regarding claims 1 and 15: Livingston discloses a printing system (figure 1 of Livingston) comprising at least one input source (figure 3a(64("Paper Source")) of Livingston) for storing a medium prior to printing (column 5, lines 20-22 of Livingston); and at least two output destinations (figure 3a(64("Output Bin")) of Livingston) for holding or processing the medium after printing (column 5, lines 19-23 of Livingston). One of a plurality of paper sources (media) and one of a plurality of output bins (destinations) can be selected for a page of the overall print job (column 5, lines 19-26 of Livingston). Therefore, at least one input source for storing a medium and at least two output destinations for holding or processing the medium after printing are inherently a part of the overall printing system. Otherwise, there is no source of paper media to print upon and no output destinations to send the print medium to be held or processed.

Said printing system further comprises a user interface (figure 1(28) of Livingston) to support a user's entry of a command (column 3, lines 20-23 of Livingston) comprising at least a media identifier (paper source) and an output destination indicator (output bin), the command supporting selection of one of the output destinations (column 5, lines 19-23 of Livingston) for any sheet of a print job (column 5, lines 13-15 and lines 17-23 of Livingston) in said at least one input source prior to the printing (column 3, lines 51-55 of Livingston); and a central processing unit (figure 1(14) of Livingston) configured to determine a pattern of media feeds for each output set of a print job to achieve a desired appearance characteristic of sheets for the output set (column 3, lines 51-55 and column 5, lines 17-23 of Livingston). Each page can be

Art Unit: 2624

altered for a plurality of different features in order to obtain a particular desired appearance (column 3, lines 51-55 of Livingston). Such features include the target printer and the output bin (column 5, lines 17-23 of Livingston). Thus, the central processing unit must determine a pattern of media feeds for each output set of a print job in order to be able to carry the printing at a particular target printer and the output of the result to a particular output bin.

Regarding claims 2-3 and 17-18: Livingston discloses that said command comprises an output-destination-control command (column 5, lines 22-26 of Livingston) including a media tag as the media identifier (figure 3a(64("Paper Source"))) of Livingston), an exit name as the destination identifier (figure 3a(64("Output Bin"))) of Livingston) (column 5, lines 19-23 of Livingston), and a defined number of pages associated with the media tag and the exit name (column 5, lines 11-15 and lines 20-23 of Livingston). The identification of the paper source corresponds to the media tag which identifies the input media. The output bin identifier corresponds to the exit name which identifies the destination. Selecting the paper source and output bin (column 5, lines 20-23 of Livingston) for individual pages (column 20-23 of Livingston) defines the number of pages associated with said media tag and said exit name.

Regarding claims 4 and 19: Livingston discloses that said command comprises an alternate media command that requests the incorporation of an alternate media into a defined portion of the print job (column 3, lines 51-53 and column 5, lines 19-22 of Livingston). The user can select a different paper source (column 5, lines 19-22 of Livingston), and thus a different

Art Unit: 2624

media, which is a media that is an alternative to the default media (column 3, lines 51-53 of Livingston).

Regarding claim 6: Livingston discloses that said media identifier includes at least one of a primary (default) media identifier and an alternate media identifier for the print job (column 3, lines 51-53 and column 5, lines 19-22 of Livingston). The user can use a default setting or an alternate setting (column 3, lines 51-53 of Livingston) for the media to be used for the print job (column 5, lines 19-22 of Livingston).

Regarding claims 7 and 21: Livingston discloses that said central processing unit supports association of the media identifier with a corresponding input source that stores a particular medium (column 5, lines 19-22 of Livingston). Selection of a particular source or size of paper (column 5, lines 19-22 of Livingston) clearly associates the media identifier, namely the software signal element selected in the user interface (figure 3a(64("Paper Source")) of Livingston), with the actual paper source and/or size that is stored and used for printing.

Regarding claims 8 and 22: Livingston discloses that said command has a primary command format that includes the media identifier (figure 3a(64("Paper Source")) of Livingston), a request identifier (figure 3a(58) of Livingston), and a page identifier (figure 3a(84) of Livingston), where the media identifier, the request identifier, and the page identifier are associated with each other for application to at least a portion of the print job (column 5, lines 13-15 and lines 20-26 of Livingston). When the media identifier (figure 3a(64("Paper Source")) of Livingston) is selected (column 5, lines 20-23 of Livingston) in the user interface (figure 3a of Livingston), a

Art Unit: 2624

pull-down menu (figure 3a(84) of Livingston) is used to identify the page whose attributes are to be modified (column 5, lines 13-15 of Livingston). When the page is selected, the request identifier (figure 3a(58) of Livingston) is used to select what changes to make (column 5, lines 22-26 of Livingston).

Regarding claims 9 and 23: Livingston discloses that the command has a secondary command format that includes the media identifier (figure 3a(64("Paper Source")) of Livingston), the output destination indicator (figure 3a(64("Output Bin")) of Livingston), a request indicator (figure 3a(58) of Livingston), and a page quantity (figure 3a(84) of Livingston), where the media identifier, the output destination indicator, the request indicator, and the page quantity are associated with each other for application to at least a portion of the print job (column 5, lines 13-17 and lines 20-26 of Livingston). When the output destination (figure 3a(64("Output Bin")) is selected, in the user interface (figure 3a of Livingston), a pull-down menu (figure 3a(84) of Livingston) is used to identify the page or pages whose attributes are to be modified (column 5, lines 13-17 of Livingston). When the pages have been selected, the request identifier (figure 3a(58) of Livingston) is used to select what changes to make to said pages (column 5, lines 22-26 of Livingston). The page quantity is simply the number of specifically selected pages chosen in said pull-down menu. The media identifier is a part of said secondary command format since there must inherently be a print media source in order to print based on said selected attributes.

Regarding claims 10 and 24: Livingston discloses that said command comprises a print job request to route some fraction of an ordered media for the print job from the at least one input

Art Unit: 2624

source to a selected output destination among the two or more output destinations (column 5, lines 13-15 and lines 17-23 of Livingston). Specific pages of the overall print job are selected (column 5, lines 13-15 of Livingston) to be routed from the at least one input source to an output destination that is specifically selected from among the two or more output destinations (column 5, lines 17-23 of Livingston).

Regarding claims 12 and 26: Livingston discloses that said command comprises selecting specific pages of an overall print job (column 5, lines 13-15 of Livingston), to be routed from the at least one input source to a specifically selected output destination (column 5, lines 17-23 of Livingston), wherein said selected output destination is different from the default output destination (column 3, lines 51-53 of Livingston). The media of said print job is arranged in a specific order, as evidenced by the selection of particular page numbers in the overall print job (figure 3a(84) and column 5, lines 59-61 of Livingston). Therefore, a first group of defined members of an ordered media is routed to the default output destination and a second group of ordered media, namely the specifically selected pages, is routed to another output destination, namely the specifically selected non-default output destination. Since this all occurs within a single overall print job, said first group and said second group belong to the same output set.

Regarding claims 13 and 27: Livingston discloses that said command comprises an output-destination-control command (column 5, lines 18-23 of Livingston) that selectively incorporates a new printed media command into the output-destination-control command (column 5, lines 13-23 of Livingston) if respective values of symbols for corresponding pages of the output set meet

Art Unit: 2624

defined criteria (column 6, lines 60-62 of Livingston). A new print media and its output destination (column 5, lines 18-23 of Livingston) can be selected for particular pages by using a pull-down menu and page selector (column 5, lines 13-17 of Livingston). The selection of the new media and the output destination that corresponds with a particular page changes the values of the symbols denoting which media and output destination is desired for said particular pages (column 6, lines 60-62 of Livingston). The defined criteria for change is the selection of desired changes for particular pages (column 6, lines 60-62 of Livingston).

Regarding claims 14 and 28: Livingston discloses that said command comprises an output-destination-control command (column 5, lines 18-23 of Livingston) that selectively incorporates an alternate media command (column 3, lines 51-55 of Livingston) into the output-destination-control command (column 5, lines 13-23 of Livingston) if respective values of symbols for corresponding pages of the output set meet defined criteria (column 6, lines 60-62 of Livingston). An alternate print media (column 3, lines 51-55 of Livingston) and its output destination (column 5, lines 18-23 of Livingston) can be selected for particular pages by using a pull-down menu and page selector (column 5, lines 13-17 of Livingston). The selection of an alternate media and the output destination that corresponds with a particular page changes the values of the symbols denoting which alternate media and output destination is desired for said particular pages (column 6, lines 60-62 of Livingston). The defined criteria for change is the selection of desired changes for particular pages (column 6, lines 60-62 of Livingston).

Regarding claim 16: Livingston discloses feeding the media to different output destinations (output bins) (column 5, lines 19-26 of Livingston). Therefore, it is inherent that some form of media feed instructions are created based on the pattern of media feeds. Otherwise, there is nothing to direct said media to different output destinations.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 5 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Livingston (US Patent 6,621,590 B1) in view of Mastie (US Patent 6,583,890 B1).

Regarding claims 5 and 20: Livingston does not disclose expressly that said command comprises a non-printed media command that represents a request for incorporation of a blank or non-printed media into a designated portion of the print job.

Mastie discloses a non-printed media command that represents a request for incorporation of a blank or non-printed media into a designated portion of the print job (column 6, lines 58-60 and column 6, line 67 to column 7, line 2 of Mastie).

Livingston and Mastie are combinable because they are from the same field of endeavor, namely the processing and formatting

Art Unit: 2624

of print data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include a blank or non-printed media command, as taught by Mastie, into the overall command taught by Livingston. Inserting a sheet either before or after a particular page in the print job would simply be another feature that can be selected in the user interface shown in figure 3(64) of Livingston. The motivation for doing so would have been to modify a print job so that said print job is consistent with a desired document framework (column 6, lines 58-63 of Mastie). Therefore, it would have been obvious to combine Mastie with Livingston to obtain the invention as specified in claims 5 and 20.

6. Claims 11 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Livingston (US Patent 6,621,590 B1) in view of Farrell (US Patent 5,179,410).

Regarding claims 11 and 25: Livingston does not disclose expressly that said command comprises a request to purge an un-needed sheet to a specified one of the at least two output destinations of the print job.

Farrell discloses a request to purge an un-needed sheet to a specified destination (column 7, lines 7-12 of Farrell).

Livingston and Farrell are combinable because they are from the same field of endeavor, namely the processing and formatting of print data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include said request to purge taught by Farrell into the structure of said command taught by Livingston. The specified destination would therefore be one of the at least two output destinations taught by Livingston, since said output destinations are the output

Art Unit: 2624

destinations available in the printing system taught by Livingston. The motivation for doing so would have been to remove a page from the print job when said page has inadequate image quality (column 7, lines 7-12 of Farrell). Therefore, it would have been obvious to combine Farrell with Livingston to obtain the invention as specified in claims 11 and 25.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

D'Alessandro et al., US Patent 6,600,570 B1, 29 July 2003.

Rourke et al., US Patent 5,995,721, 30 November 1999.

Ryan et al., US Patent Application Publication 2002/0097407 A1, 25 July 2002.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A Thompson whose telephone number is 703-305-6329. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K Moore can be reached on 703-308-7452. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2624

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James A. Thompson
Examiner
Art Unit 2624

JAT
09 December 2004



THOMAS D.
~~THOMAS D.~~ LEE
PRIMARY EXAMINER